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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,274	02/18/2004	Marcio Gerep	040060	2054
23464 7590 03/23/2007 BUCHANAN INGERSOLL & ROONEY PC P.O. BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER LAUX, JESSICA L	
			ART UNIT	PAPER NUMBER
			3635	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/781,274	Applicant(s) GEREP, MARCIO	
	Examiner Jessica Laux	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 6, 13, 17 (the 2<sup>nd</sup> one), 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12 and 14-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/13/2006, 02/18/2004</u>                                    | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

This application contains claims directed to the following patentably distinct species:

Species I – the embodiment of figure 1

Species II – the embodiment of figure 2.

The species are independent or distinct because each embodiment requires a different structure for a different purpose (ie. species I requires projections on the top while species two requires grooves along the sides and crosscut grooves and projections on the top). This would be a serious burden to the examiner as each embodiment requires a separate search query.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after

Art Unit: 3635

the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

During a telephone conversation with Mr. Alstadt a provisional election was made with traverse to prosecute the invention of Species I, claims 1-5, 7-12, 14-16, 18-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6, 13, 17, 23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Objections***

Claims 17 and 18 (all claims recited thereafter) are objected to because of the following informalities: the claims numbers 17 and 18 are recited twice. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 7-8, 12, 14, 18, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerep (5107798) in view of T.D. Coe (3313339).

Regarding claims 1, 7-8, 14: Gerep discloses panel, for a furnace or boiler, having studs attached to the surface of the panel. The studs have a cylindrical body with a top, bottom and sidewall. The studs of Gerep are subjected to very high temperatures and corrosive materials, severely shortening the life of the stud. The

Art Unit: 3635

studs are also used for supporting a smelt layer (46). This is a similar use and construction to applicant's invention.

Gerep does not disclose that the studs have projections extending from the top of the stud to form a heat sink. Coe discloses a heat sink for the purpose of cooling. It would have been obvious to one of ordinary skill in the art to modify the studs of Gerep to have projections, acting as a heat sink, as disclosed by Coe for the purpose of cooling the molten smelt layer to provide more protection and longevity to the studs.

Regarding claims 5, 12, 18, 22: The improved stud as disclosed above wherein the plurality of projections are formed by a series of cross cuts on the top of the stud.

It should be noted that these claims are considered a product-by-process claim. The patentability of the product does not depend on its method of production. Determination of patentability is based on the product itself. See MPEP 2113. If the product-by-process claim is the same as or obvious from a product of the same prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.Cir.1985).

Claims 2-4, 9-11, 15-17, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerep (5107798) in view of T.D. Coe (3313339) and further in view of Wydra et al (6440499).

Regarding claims 2-4, 9-11, 15-17, 19-21: Gerep in view of Coe discloses the improved stud as above, but does not expressly disclose a diffusion coating to protect the stud against corrosion or erosion. Wydra discloses a diffusion coating layer, of

Art Unit: 3635

nickel for protecting metals exposed to high temperatures against corrosion due to the high temperatures (Wydra- Col. 1, lines 14-20).

It would have been obvious at the time of the invention to modify the furnace/boiler stud of Gerep in view of Coe to have the diffusion coating as disclosed by Wydra to protect the stud from the corrosive effects of the high temperatures the stud is exposed to.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Laux whose telephone number is 571-272-8228. The examiner can normally be reached on Monday thru Friday, 6:30am to 2:30pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman can be reached on 571-272-6842. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



**Carl D. Friedman**  
**Supervisory Patent Examiner**  
**Group 3600**

Art Unit: 3635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JL  
03/15/2007